# *Report*
# Wolf Trap Farm Park for the Performing Arts

## 1.0 Site Description

The Wolf Trap Farm Park is the only NPS venue dedicated to the sponsorship of the performance arts. The 130-acre site accommodates the Filene Center, the open-air performing arts pavilion, as well as administrative and maintenance facilities and parking. The Farm Park is located 25 miles west of Washington, D.C.. While the grounds are managed by the NPS, the concerts and proceeds from them are managed by the Wolf Trap Foundation. Land for the Park was donated by wealthy philanthropist Katherine Shouse in the early 1960s; the Congress authorized the use of the land as a national park on October 15, 1966.

**Figure 1. The Filene Center**

Each year, Wolf Trap hosts up to 100 musical performances under its open-air pavilion during its June to October performance season. The grounds can accommodate up to 7,000 persons per performance, with 4,000 of those seats located within the pavilion. Last year, one third of all scheduled events drew over 6,000 persons. Total attendance has remained at or near 500,000 over the past few years.

The Park is accessible from the Dulles Toll Road (there is a half-diamond interchange to and from the east) and from Virginia State Road 7 (Lee Highway). There is a residential neighborhood to the east through which Virginia Route 7 is accessed for the relatively small percentage of patrons local to the area. There is paved parking for 1,200 vehicles and "official" overflow parking on stabilized turf for 300 more. Unofficial parking occurs on the shoulders of Trap Road, from the residential area to the east to the Center.

Performances typically begin at 8:00 p.m. (most arrivals occur between 7:30 p.m. and 8:00 p.m.) and end at 10:00 p.m.

Mr. Richard Wilt is the Park Superintendent.

## 2.0 Existing ATS

The Park faces access and egress constraints which cause considerable congestion before and after performances. A significant investment would be necessary to create a viable transit alternative to the predominant auto mode of access.

The mass influx and exodus of visitors before and after evening performances has created a serious traffic management problem. Before performance time, patrons entering the Park from the Dulles Toll Road are directed to their parking space by Park police one by one, in order to ensure the safe and orderly circulation of vehicles in the limited space within the Park. This, however, can create queues on the entrance ramp from the Dulles Toll Road, sometimes extending to the mainline lanes. Queue length may approach one mile, but typically ranges between a quarter and a half mile.

Managing departures is a much larger problem. While most arrivals occur during the half hour before the performance begins, all departures occur once the performance has ended. Over 70 percent of all exiting vehicles exit the Park by (there may be 2,600 vehicles exiting in all) crossing a two-lane bridge over the Toll Road, then turning left to an eastbound ramp to the Toll Road. Up to one hour may be required to clear the last car from the Park.

In either case, extreme care is taken to minimize pedestrian-vehicle conflicts. Currently, patrons can cross the main access road from the surface parking lot via an underpass.

*A related and second major challenge is the lack of parking. In addition to 1,200 spaces of paved surface parking, there are 500 spaces available on stabilized grassy areas. Average auto occupancy for evening performances is 2.3, so a lack of parking accompanies most well-attended concerts. The grassy parking areas may become sodden and unusable in rainy weather. Some additional spillover parking may occur along the residential area on Trap road, the entrance road bisecting a residential community from Virginia Route 7.*

The Park is accessible by shuttle bus which provides 15-minute closed-door service to the West Falls Church Metro rail station, and two to three charter buses arrive for each performance as well. No more than 30 to 100 persons are estimated to use the shuttle bus service on any given evening. The shuttle service is advertised in the Wolf Trap Foundation's monthly newsletter. Park Management notes that it is increasingly common for members of two-wage earner families to arrive at the Park in separate vehicles.

Alternative Transportation Systems (ATS) services are provided for internal circulation as well. There are several electric and gas-operated golf cart-type vehicles which shuttle handicapped persons from the paved parking lot to the performance center. The newer, gas-operated Dihatsu vehicles have proven more reliable than the electric powered

Cushman vehicles. The Dihatsu vehicles seat 10 persons in four rows, and cost $16,650 each.

## 3.0 ATS Needs

The 1997 General Management Plan describes four alternative actions to address safety access and circulation issues in the Park:

- Alternative 1 would maintain the status quo without addressing current parking and circulation problems.

- Alternative 2 would accommodate parking needs by expanding surface parking over grassed areas. A off-site parking area serviced by a shuttle bus system would be provided as well.

- Alternative 3 would provide an on-site parking structure, and would upgrade all existing paved parking lots. Vehicles and pedestrians would circulate in safe, separate areas. The parking garage is estimated to cost $3 million.

- Alternative 4 would expand parking by clearing approximately three acres of forested area and regrading grassed areas currently used for parking.

Although a rail station has not been examined explicitly in any of the alternatives, the NPS has considered it. The NPS would have to bear the costs of the station construction. No formal studies to estimate patronage and traffic impacts has been conducted.

Park management has discussed widening the two-lane bridge with the Virginia Department of Transportation. There is strong local opposition to any bridge widening. VDOT currently has no funds in its budget to widen this bridge.

A traffic study conducted for the Park examined traffic management and parking problems addressed in the General Management Plan. The study examined the need for a full interchange between the Toll Road and the Park, and concluded that the expense was not justified due to the likelihood that the ramps would only be used after/before performances. The study also considered, and rejected, the 2,000-space parking garage discussed in the plan, due to cost considerations (over $30 million). A third transportation issue the study examined was the possible institution of a park-and-ride service from the National Wildlife Federation parking lot on State Route 7 one mile away. This proposal was rejected, because of the high degree of traffic congestion that both vehicles accessing the lot and shuttle buses would encounter between the lot and the Park

# 4.0 Basis of ATS Needs

Transit does not play a major role in any of the proposed alternatives discussed in the General Management Plan, and Park management does not envision a new major role for transit in the future. Transit may have a more prominent transportation role to play in the future if current plans to address access/egress issues do not prove successful. This role may take two directions:

1. An extension of the feasibility study of bus access to/from the Wildlife Foundation parking lot, to determine whether any less congested routes are feasible. Alternatively, other remote lots may offer better access to the Park and ease access/egress problems now experienced.

2. Further investigation into the creation of a new Metro rail station to service the Park. The ridership potential of such a station would be considered in such a study.

Additionally, an engineering/planning study of the bridge over I-66 may be warranted. Potential actions for further study include:

1. Widening of the bridge from two lanes to three lanes, two in the northbound direction to accommodate traffic departing from the performance.

2. Temporary conversion of the bridge to one-way traffic to accommodate departing traffic, and closure of the bridge to local, southbound traffic. The ramp to eastbound Dulles Toll Road would be widened to accommodate two lanes of traffic. The Toll Road itself could be temporarily re-striped with traffic cones to allow a smooth merge with the mainline traffic. Light weeknight traffic volumes at 10 PM on the Toll Road make such an arrangement possible.

3. Reconstruction of the eastbound exit ramp from a diamond interchange to a loop ramp to allow for the continuous movement of traffic onto the mainline lanes of Dulles Toll Road.

# 5.0 Persons Interviewed

Richard Wilt, Superintendant